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MDA RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								DATE February 2002	
BUDGET ACTIVITY 4 - Program Definition and Risk Reduction				PE NUMBER AND TITLE 0603868C Navy Theater Wide - DEM/VAL				PROJECT 1266	
COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
1266 Navy Theater Wide	440930	0	0	0	0	0	0	Continuing	Continuing
<p>A. <u>Mission Description and Budget Item Justification</u></p> <p>FY 2002 the Navy Theater Wide Program transferred to Program Element (PE) 0603882C, Mid-Course Defense System. This budget is prepared accordingly.</p> <p>The requirement for the Navy Theater Wide (NTW) Theater Ballistic Missile Defense (TBMD) system is to provide protection to U.S. and allied forces against medium to long range theater ballistic missiles (TBMs), which may be equipped with Weapons of Mass Destruction (WMD). This protection includes those political and military assets designated as vital to U.S. interests. NTW will provide an effective defense when the ship is positioned near the enemy TBM launcher to effect ascent phase intercepts; along the TBM trajectory as the TBM passes over water, or inland along the coast to effect midcourse intercepts; and, near the defended area to provide descent phase intercepts and achieve an additional layer of defense for lower-tier TBMD systems.</p> <p>The NTW system builds upon the existing AEGIS Weapon Systems (AWS) and the STANDARD Missile (SM) infrastructure as a further evolution to the Navy Area TBMD system. The AWS (as modified for Navy Area TBMD) will be evolved to support exoatmospheric ascent, midcourse, and descent phase TBM engagements. The Navy SM-2 Block IV has been modified to accommodate a new third stage propulsion system, a fourth stage kinetic warhead (KW), and associated exoatmospheric guidance. The new variant of the SM is the SM-3. The NTW AEGIS LEAP Intercept (ALI) Flight Demonstration Program (FDP) consists of a series of near-term flight tests with the primary objective of demonstrating that Lightweight Exoatmospheric Projectile (LEAP) technologies can be integrated with a modified SM-2 Block IV and AWS to hit a TBM target in the exoatmosphere.</p> <p>In April 1999, the NTW Program was reviewed by the Defense Acquisition Board (DAB) and on 4 May 1999 the Department issued an Acquisition Decision Memorandum (ADM). As part of the revised Upper Tier strategy, the Department directed the Navy to expand the ADM approved evolutionary acquisition approach to incrementally deliver Block I capabilities. From an acquisition viewpoint, the Department has directed the Navy to continue this evolutionary Block approach, through an initial system flight test program (AEGIS LEAP Intercept (ALI)), followed by developmental increments of the Block I system. These increments provide the warfighter with ascent-phase capability and provide the basis to evolve to the objective system using a spiral evolution acquisition strategy. The NTW program can deliver a warfighting capability by successive capability deliveries leading to a full ORD compliant NTW Block I system.</p> <p>In August 2000 Program Decision Memorandum (PDM) directed BMDO, in coordination with PA&E and the Navy, to conduct a comprehensive study of the NTW program, including the radar, funding requirements, and missile procurement. The study was directed to reevaluate the Block I requirements; define Block II, including requirements and schedule; develop potential alternative solutions to fulfill NTW requirements; and, assess the implications of its findings on the appropriate course for Block I and II for the on-going U.S./Japan cooperative effort. Based on PDM study results that recommend skipping Block I development after ALI testing and progressing directly to Block II.</p>									
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<p>NOTE: In FY 2001 \$15,790K of the funding for NTW is for cooperative development efforts with the Government of Japan for NTW Block II technologies.</p> <p>FY 2001 Accomplishments:</p> <ul style="list-style-type: none"> • 404772 Continued execution of the ALI FDP, FTR-1A and planning for FM-2, FM-3, and FM-4 test events. In January 2001 FTR-1A was successfully launched demonstrating SM-3 third stage airframe stability and control through nominal kinetic warhead (KW) ejection, and Third Stage Rocket Motor (TSRM) performance. Performed SM-3 SDACS qualification activities, including the successful SDACS KW Strapdown Integration Test (SIT) conducted in July 2001 and Qualification Test One (Q-1), a hot fire static test, successfully performed in August 2001. Participated in the Theater Critical Measurements Program-3B (TCMP-3B) flight test in February 2001 which enabled the collection of ascent phase TBMD data NTW sensors for end-to-end simulation validation using high-range resolution (HRR) radar, and SM-3 Captive Carry on board the Airborne Surveillance Testbed (AST); full CORAL TALON II Link architecture was established and interoperability objectives were accomplished. Participated in the successful launch of the Quick Reaction Launch Vehicle One (QLRV-1) in March 2001. Successfully tracked the QLRV-1 target and conducted simulated ascent phase intercept engagement using the ALI computer program; success of this test enabled the NTW program to meet its Threat Representative Flight Test Program (DT-1B) risk reduction objectives. Continued the development and manufacturing of ALI FTRs and associated ground hardware and test equipment. Continued AWS development engineering to support the ALI program. Concluded studies of alternate DACS. Continued work on Advanced Kill Vehicle pump-propulsion technology development and perform a liquid fuel handling and safety assessment. Continued Block II associated radar improvements competition. Continued design, development, and manufacturing of Block I FTRs. Continued Block I AWS development engineering. Continued Block I AWS development engineering, including common signal processor prototyping. Continued Block I systems engineering and program planning efforts. • 6258 Continued lethality requirement definition support and lethality performance testing of NTW KW. • 5934 Continued targets procurement to support NTW test and evaluation. • 15033 Continued Requirements, Analysis and Design (RA&D) cooperative development efforts with the Government of Japan on selected NTW Block II technologies. • 8933 Provided support for continued development of adaptive algorithms with BMDO. <p>Total 440930</p> <p>FY 2002 Planned Program: In FY 2002 the NTW program transferred to PE 0603882C, Midcourse Defense System</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th style="text-align: left;">B. Program Change Summary</th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>FY 2002</u></th> <th style="text-align: center;"><u>FY 2003</u></th> </tr> <tr> <td>Previous President's Budget (FY 2002 PB)</td> <td style="text-align: center;">382671</td> <td></td> <td></td> </tr> <tr> <td>Adjustments to Appropriated Value</td> <td style="text-align: center;">+80000</td> <td></td> <td></td> </tr> <tr> <td>Appropriated Value</td> <td style="text-align: center;">462671</td> <td></td> <td></td> </tr> <tr> <td>a. Congressional General Reductions</td> <td style="text-align: center;">-4227</td> <td></td> <td></td> </tr> <tr> <td>b. SBIR / STTR</td> <td style="text-align: center;">-10058</td> <td></td> <td></td> </tr> </table>			B. Program Change Summary	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	Previous President's Budget (FY 2002 PB)	382671			Adjustments to Appropriated Value	+80000			Appropriated Value	462671			a. Congressional General Reductions	-4227			b. SBIR / STTR	-10058		
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c. Omnibus or Other Above Threshold Reductions								
d. Below Threshold Reprogramming		-5384						
e. Rescissions		-2072						
Adjustments to Budget Years Since <u>FY 2002</u> PB								
Current Budget Submit (<u>FY 2003</u> Budget Estimates)		440930						
<p>Change Summary Explanation: FY2001: Increase \$80M Congressional add for NTW acceleration and advanced radar competition. Congressional General Reductions and Section 8126 reduction (\$5.296M). Rescission (\$1.003M) .</p>								
C. <u>Other Program Funding Summary</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	To <u>Compl</u>
PE 0604867C Navy Area	267453	99302						Total <u>Cost</u>
<p>D. <u>Acquisition Strategy:</u></p> <p>The Navy strategy for NTW TBMD development calls for the evolution of the existing AWS, SM Vertical Launching System (VLS), and Battle Management Command, Control, Communications, Computers, and Intelligence (BMC⁴I) systems. This evolutionary approach leverages previous investments and takes advantage of already existing trained crews, industrial capability, engineering support, and previously developed assets such as the LEAP.</p>								
E. <u>Schedule Profile</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>
Flight Test Round 1A	2Q							
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MDA RDT&E COST ANALYSIS (R-3)

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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Missile Development	CPAF	Raytheon	1250688						1250688	
b. AWS & VLS Dev	CPAF	Lockheed Martin	432701						432701	
c. Radar Development	845	Lockheed Martin	59121						59121	
d. Radar Development	CPAF	Raytheon	59121						59121	
e. VLS Development	CPAF	United Defense	23734						23734	
f. Missile Dev / System Engineering	CPFF	JHU/APL	134353						134353	
g. System Engineering	CPFF	TSC	13813						13813	
h. AWS & Missile Dev / System Engineering	WR	NSWC Dahlgren	151070						151070	
i. AWS & Missile Dev / System Engineering	WR	NAWC China Lake	31674						31674	
j. System Engineering / RRA	MIPR	MIT/LL	50478						50478	
k. Alternate DACS Dev	MIPR	LLNL	8500						8500	
l. Alternate DACS Dev	CPFF	Aerojet	3000						3000	
m. Alternate DACS Dev		BMDO	500						500	
n. Alternate DACS Dev		Various	2000						2000	
o. Various		BMDO	111266						111266	
p. Various		Misc	37589						37589	
Subtotal Product Development:			2369608						2369608	

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II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	<u>FY 2002</u> Cost	<u>FY 2002</u> Award Date	<u>FY 2003</u> Cost	<u>FY 2003</u> Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Engineering Support	CPFF	Anteon	8792						8792	
b. Engineering Support	CPAF	Marconi	6519						6519	
c. Engineering Support	CPFF	SSI/PSI	4207						4207	
d. Engineering Support	CPFF	SPA	1681						1681	
e. Mgmt & Prof Supt Svcs		Misc	1621						1621	
Subtotal Support Costs:			22820						22820	

Remark:

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	<u>FY 2002</u> Cost	<u>FY 2002</u> Award Date	<u>FY 2003</u> Cost	<u>FY 2003</u> Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. DT&E	CPAF	Lockheed Martin	3554						3554	
b. DT&E	CPAF	Raytheon	3717						3717	
c. DT&E	CPFF	JHU/APL	10816						10816	
d. DT&E	WR	NAC Point Magu	5354						5354	
e. Lethality / DT&E	WR	NSWC Dahlgren	30793						30793	
f. DT&E	WR	NSWC Port Hueneme	10184						10184	
g. DT&E	MIPR	NAIC	7671						7671	
h. DT&E	MIPR	Nat'l Assess Group	2785						2785	
i. DT&E	WR	PMRF	23115						23115	
j. Targets	MIPR	SMDC Army	67663						67663	
k. DT&E	MIPR	SMDC Army	3884						3884	
l. DT&E		Misc	23938						23938	
m. Facilities	MIPR	NHTF	2501						2501	
Subtotal Test and Evaluation:			195975						195975	

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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	<u>FY 2002</u> Cost	<u>FY 2002</u> Award Date	<u>FY 2003</u> Cost	<u>FY 2003</u> Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Internal Operating	WR	NAVSEA	13096						13096	
b. Program Management	CPFF	Anteon	25194						25194	
c. Program Management	CPAF	Marconi	4860						4860	
d. Program Management	CPFF	SSI?PSI	5138						5138	
e. Program Management	WR	NSWC Dahlgren	34425						34425	
f. Program Management	WR	NRL	6188						6188	
g. Program Management	WR	NAWC China Lake	18361						18361	
h. Program Management	WR	MWAD	5304						5304	
i. Program Management	WR	NSWC Indian Head	5238						5238	
j. Program Management		Misc	4009						4009	
k. Program Management		Misc	4165						4165	
Subtotal Management Services:			125978						125978	

Remark:

Project Total Cost:			2714381						2714381	
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